
ENVIRONMENTAL Fact Sheet



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A Call to Action for Sportsmen's Clubs and Shooting Ranges: *Getting the Lead Out*

Sportsmen's clubs and shooting ranges throughout New Hampshire are always among the first to step forward when action is needed to protect natural resources upon which we all depend, and now, once again, shooters have a chance to put that reputation to work.

The challenge at hand is environmental contamination from lead shot used in shooting trap, skeet, and sporting clays, and from spent lead bullets at shooting ranges. It's a problem that continues to threaten wildlife, habitat, and water quality.



It's an issue that's drawing the attention of national sportsmen organizations, arms and ammunition manufactures, environmental professionals, and concerned citizens across the country. In New Hampshire, the [Department of Fish and Game \(NHFG\)](#) is working with the [Department of Environmental Services \(NHDES\)](#) to help individual shooters see the scope of the problem and work toward affordable, reasonable solutions.

What's the Problem?

Lead in the environment – from many kinds of sources – poses a growing threat, and with good reason. Excessive lead in the human body can damage genes, cause cancer, impair reproductive and thyroid functions, and lower resistance to infectious diseases. Children are especially vulnerable; even relatively low levels of lead in young bodies can affect learning and development, and higher levels can damage the kidneys, nerves, blood, and digestive systems.

Wildlife are also at risk. Lead poisoning of waterfowl from ingestion of spent shot was first identified more than a century ago and has been documented in at least 15 countries. Wildlife weakened by lead poisoning are easier prey, and predators – eagles and other raptors, for example – can ingest the lead from the stomachs and gizzards of their prey.

How Much is Out There?

That's hard to say, so far. But take a look at what might be the situation at a typical shooting range. There are about 11/8 ounces of lead in a shell. Multiply that by, say, three boxes of shells that one person might shoot per shooting, and you've got roughly 5 1/4 pounds. If there are 25 people shooting, then you're looking at nearly 132 pounds of lead per outing.

With, say, only one outing a week for 30 weeks a year, those 25 shooters alone drop almost two tons of lead into the environment. Do the arithmetic for dozens of clubs and ranges in New Hampshire, over years and decades, and you begin to see how big the problem really might be.

Where Does It Go?

All too often, the lead ends up in the water – in wetlands, rivers, streams, and ponds. How much and how often depends upon a number of factors: precipitation, the slope of the land, composition of the soil, and vegetation.

Of course, the threat of lead contamination to nearby water resources – especially to drinking water and wetland habitats – are unique to every shooting range. But make no mistake: those threats to the natural resources we all strive to protect are very real. Now is the time for sportsmen and other conservationists to take action.

What's the Solution?

Not surprisingly, there's no one, simple answer, but right now a lot of people are working on it. New Hampshire is participating at the national level in efforts to develop better lead management practices.

The NHDES and the NHF&G are calling on shooting ranges to develop Environmental Stewardship Plans as described in a manual published by the National Sport Shooting Foundation, *Environmental Aspects of Construction and Management of Outdoor Shooting Ranges*. The NSSF publication maps out a strategy for capturing and recycling spent lead and sets forth protective measures for the future. Getting the lead out from decades of shooting is no easy task, and for many facilities the obstacles, physical and fiscal, may prove too great. But proactive planning for the future is a sensible and doable step.

What Can You Do?

NHDES and the NHF&G share an interest with sportsmen and sportswomen in preserving a clean and healthy environment. Shooting ranges across the state are comprised of thousands of acres of valuable open space. As stewards of this land, shooting range owners are encouraged to work with the NHDES and the NHF&G by following these recommendations:

- If you're going to shoot lead, recycle it. Don't shoot in areas where it will be difficult later on to recover lead shot.
- Encourage the use of non-toxic shot, such as non-toxic steel shot, bismuth-tin alloy, tungsten iron or tungsten polymer.
- Don't shoot over surface waters or wetlands. If you're not sure whether it's a wetland, call the NHDES, Water Division at 271-2147. For information on surface water issues, call the Watershed Management Bureau at 271-2963.
- Some ranges may be able to readily recover and recycle lead shot from the past, but do so only with an Environmental Stewardship Plan and the help of an environmental professional who knows what federal, state, and local regulations apply to your range.
- Call the National Sport Shooting Foundation at 203-426-1320 to get a copy of *Environmental Aspects of Construction and Management of Outdoor Shooting Ranges*. [e-mail: info@nssf.org].
- Contact the US Army Environmental Center at www.aec.army.mil/prod/usaec/et/xxi/smallarms.html for a recently published 40-page guidebook titled *Prevention of Lead Migration and Erosion from Small Arms Ranges*.

The guidebook identifies environmental issues related to soil and water quality and spells out the best management practices for range design and maintenance, such as managing storm water runoff, vegetative filter strips for sediment control and how to keep vegetation intact to minimize the migration of lead from the range.

- Work to control surface water runoff from shot drop zones.
- If the facility has an on-site well, have samples analyzed periodically for lead (and other heavy metals) at an NHDES – approved laboratory.
- Organize a lead awareness program at your club.
- For additional information contact Jim Hall, NHF&G at 271-1746 or John F. Liptak, NHDES at 271-1169.

Sportsmen have a long tradition of leading conservation efforts for wildlife management and habitat protection. Some of the above recommendations are easy to carry out, other take a bigger commitment. Every one provides an opportunity for sportsmen to step forward once again and make a difference.